

# **BEGINNING SCHOOL BUS DRIVER CURRICULUM**



## **UNIT III VEHICLE INSPECTIONS**

*Revised 11/2007*

# UNIT III – VEHICLE INSPECTIONS

## TABLE OF CONTENTS

Table of Contents .....	1
Objectives .....	2
Vehicle Inspections .....	3
• Why Should I Perform Inspections? .....	4
• Legal Requirements .....	5
• Department of Education Recommendations .....	6
• Department of State (CDL) Recommendations .....	6
• Additional Reasons for Performing Vehicle Inspections .....	7
Types of Vehicle Inspections .....	7
• State Police Inspections .....	8
• Preventive Maintenance .....	11
• School Bus Driver Pre-Trip Inspections .....	11
○ Procedure for a Pre-Trip Inspection .....	11
○ Sample of a School Bus Inspection Form .....	12
• Between Trip Inspections .....	13
• Post Trip Inspections .....	13
• Michigan Department of Education Best Practice .....	14
• Pre-Trip Inspection Form and Reporting Defects .....	14

## **OBJECTIVES**

The driver will state reasons for performing vehicle inspections.

The driver will identify the four types of vehicle inspections.

The driver will explain the requirement for state police inspections and the meaning of the different inspection stickers.

The driver will identify the most common unsafe conditions found during state police inspections.

The driver will identify the items that should be checked during between-trip inspections.

The driver will identify the items that should be checked during post-trip inspections.

The driver will describe an acceptable procedure for reporting unsafe conditions.

## **VEHICLE INSPECTIONS**

- Why perform inspections?
- Types of vehicle inspections.
- State police inspection requirements and statistics.
- Pre-trip inspection procedure (MDE and CDL).
- Between run inspection procedure.
- Post trip inspection procedure.
- Reporting defects.

**Vehicle Inspection** is a term given to the process of a recommended, systematized sequential procedure for inspecting a vehicle's condition to transport passengers.

During the inspection, drivers try to locate possible mechanical, electrical and/or other conditions by feeling, touching, looking, listening and/or smelling, that may cause an interruption of timely service or a collision.

Even though many school districts perform inspections somewhat differently, the procedures are basically the same. Performing the inspection is an implied driver duty.

You will review a typical inspection that is based on the Michigan Department of State Commercial Driver License (CDL) manual and the Michigan Department of Education (MDE) recommendation.

1. Why perform inspections?
2. Type of vehicle inspections.
3. State police inspection requirements and statistics.
4. Pre-trip inspection procedure (MDE and CDL).
5. Between run inspection procedure.
6. Post trip inspection procedure.
7. Reporting defects.

The transportation of pupils is a sensitive job requiring concern for safety and liability.

Never attempt to drive a defective school bus.

### **Why Should I Perform Inspections?**

- Meet Legal Requirements
- Department of Education Recommendation
- CDL Requirement
- Safety of Passengers
- Prevent Breakdowns
- Eliminate Frustrations
- Reduce Delays
- Prolong Vehicle Life

## **Safe Vehicles are Required by Law**

Listed below are a number of reasons for performing school bus inspections as required by the Michigan Department of State Commercial Driver License (CDL) manual.

### **Michigan Vehicle Code:**

**Sec. 257.683.** Driving or moving vehicle in unsafe condition and adjustment of parts and equipment; stopping and inspecting vehicle; citation; additional parts and accessories; exceptions; violation as civil infraction.

#### **Section 683.**

1. A person shall not drive or move or the owner shall not cause or knowingly permit to be driven or moved on a highway a vehicle or combination of vehicles which is in such an unsafe condition as to endanger a person, or which does not contain those parts or is not at all times equipped with lamps and other equipment in proper condition and adjustment as required in sections 683 to 711 or which is equipped in a manner in violation of sections 683 to 711. A person shall not do an act forbidden or fail to perform an act required under sections 683 to 711.
2. A police officer on reasonable grounds shown may stop a motor vehicle and inspect the motor vehicle and if a defect in equipment is found, the officer may issue a citation for a violation of a provision of sections 683 to 711.

### **Pupil Transportation Act 187**

#### **275-1811, Effective August 15, 2006**

- (10) All baggage, articles, equipment, or medical supplies not held by individual passengers shall:
- be secured in a manner which assures unrestricted access to all exits by all occupants
  - does not restrict the driver's ability to operate the bus, and
  - protects all occupants against injury resulting from falling or displacement of any baggage, article, or equipment....

### **Department of Education Recommendation**

The Board of each local school and intermediate school district require each school bus driver to perform a pre-trip inspection of the school bus, document the activity and report the condition of the school bus to the transportation supervisor before the beginning of the trip.

Local school districts and intermediate school district should encourage a comprehensive vehicle preventative maintenance program as a means to control the physical condition of the school bus.

### **Department of State (CDL) Recommendation**

Section 2 Commercial Driver License Manual Page 2-1

This section contains knowledge and safe driving information that all commercial drivers should know. You must pass a written test to obtain a CDL.

Safety is the most important reason you inspect your vehicle. Good inspections provide safety for you and for other road users. A vehicle defect found during an inspection could save you problems later. You could have a breakdown on the road that will cost time and dollars, or even worse, cause a crash because of the defect.

Federal and state laws require that drivers inspect their vehicles. Federal and state inspectors also may inspect your vehicles. If they judge the vehicle to be unsafe, it will be put "out of service" until defects are fixed.

Three types of driver inspections are recommended in Section 2:

- Pre-trip Inspection
- During a trip Inspection
- Post-trip Inspection

Section 11 of the CDL manual details the pre-trip inspection test.

The school bus driver's primary concern is for the safety of his/her passengers. As the person directly responsible, there are certain things you can do to make sure your bus is as safe as possible.

### **Additional Reasons for Performing Vehicle Inspections:**

- Safety of the passengers
- Make certain no one has tampered with your vehicle, equipment, or any unsafe items have been added during your absence
- Prevent breakdowns
- Eliminate and reduce driver frustrations
- Eliminate/reduce delay and inconvenience to the passengers
- Prolong the life of the bus and reduce transportation costs
- Help reduce any risks you might have to take in the performance of your driving duties

A vehicle inspection can, if done properly prevent breakdowns. You are trying to prevent a breakdown by maintaining your bus in its best possible condition. By using a prepared checklist many items can be checked to determine if the bus is safe and ready to drive.

Preventing breakdowns can eliminate frustrations for you. For instance, by checking the fan belt, its potential to break while on route can be reduced. This will eliminate the frustration of having to wait for repairs or a bus replacement during the bus run.

Repairing worn and broken parts not only eliminates frustrations for you, but it also eliminates delays for your passengers. When students do not arrive on time to their destination, problems are caused for the students, teachers and parents.

The daily inspection will help keep the bus in good working order. This, in turn, will prolong the life of the bus and reduce transportation costs.

You are responsible for what happens on your bus run. Vehicle inspection helps make for a safer trip.

### **Types of Vehicle Inspection:**

There are five basic vehicle inspections. Three of these you will conduct yourself. One is conducted by the Michigan State Police and the other is conducted by your school district mechanic.

- State Police
- Preventative Maintenance
- Pre-Trip
- Between-Trip
- Post-Trip



## **State Police Inspections**

Michigan law requires the Michigan State Police to inspect every school bus and transportation vehicle to determine if the vehicle meets state and federal specifications. After the inspection the vehicle will receive a sticker. It is important that you understand the meaning of the three types of inspection stickers so that you will not drive an unsafe vehicle. Description of sticker information follows.

### **Section 257.1839. Inspections**

1. The department of state police shall inspect each school bus annually and more frequently at a school where school bus defects have been found, to determine if the school bus vehicle meets the requirements of this act and the rules promulgated pursuant to this act. The department of state police may delegate the inspection of school buses to publicly employed inspectors if the inspection complies with this section.
2. Inspection of a school bus may be accomplished at any location on or off a school site, and as frequently as the department of state police considers necessary to secure passenger safety. A school bus may be rejected by the inspecting state police official for further use in the transportation of passengers if it does not meet the requirements of this act and the rules promulgated pursuant to this act. However if a school bus is determined to be safe for operation even though in unsatisfactory condition the official may determine that not more than 60 days shall be allowed to effect a specific repair.
3. A person having control over the operation of a school bus shall not operate or permit to be operated a school bus which was not inspected under this section.
4. Any public or private entity that owns or uses a school bus for pupil transportation shall notify the department of state police so an inspection can be scheduled. If an entity has had school buses inspected in the previous year, it is considered to have identified itself. Etc.
5. The department of state police may prohibit the placement and use of any device or equipment on a school bus that presents a safety hazard to the pupils, driver, or motorists during the loading, unloading, or transportation of pupils.

6. A school, before establishing a contract with a company for school bus services shall require the company to verify in writing that the buses used by the contract have been inspected by the department of state police and have passed that inspection. Etc.

### **Section 257.1841. Inspections**

1. A school bus may be rejected by the inspecting state official for use in transporting passengers if it does not meet the requirements of this act and the rules promulgated pursuant to this act.
2. A vehicle that is determined by a state police official to be unsafe for further operation as a school bus shall not be used. An unsafe vehicle shall have affixed to its windshield, by the state police official, a red sticker which shall read as follows: "This vehicle may not be driven in the transportation of any passenger. Utilization of this vehicle is in violation of the law. Reverse side of sticker, "Do not remove without State Police authorization." The sticker shall remain until the condition is corrected. A school bus may be transported to a maintenance facility for repair if the school bus driver provides written proof of destination to a state police official upon request.
3. A school bus that is considered to be in unsatisfactory condition, but that is safe for operation, shall have affixed to its windshield by a state police official a yellow sticker which shall read as follows: "This vehicle has equipment defects." Reverse side of sticker, "Repairs and reinspection shall be obtained on or before \_\_\_\_\_. Do not remove without State Police authorization." If, upon reinspection, the vehicle defect has not been repaired, replaced, or corrected, the state police official shall remove the yellow sticker and affix a red sticker to the vehicle. Exceptions may be made when the necessary parts or equipment has been ordered but not received at the time of inspection. Reinspection may take place within 60 days after the original inspection.
4. A school bus that is considered to be in satisfactory condition, after inspection by a state police official shall have a Michigan vehicle inspection passing sticker affixed to its windshield. The owner of a school bus shall remove or destroy the pass sticker before selling the school bus. The display of a pass sticker on a vehicle other than a school bus is a state civil infraction. All stickers are the property of the department of state police.

During the state police inspection a number of vehicle defects are usually found. Some are found more frequently than others. Some of the defects may not occur if you, as a school bus driver, always perform your safety inspection.

Please review the following statistics carefully and dedicate yourself to helping to change the numbers.

### **State Police Motor Carrier Division Inspections Statistics**

Statistics are published each year on the Michigan website under the State Police Motor Carrier Division.

Due to a consistent and thorough inspection process, as well as school district preventative maintenance programs, most school buses inspected have passed their inspection. Approximately 3% received a yellow tag for minor equipment defects, and 8% received a red tag for serious equipment defects.

### **Unsafe Vehicle Conditions found during Inspections**

- Mirrors - Cross view and side out of adjustment
- Brakes - Low air warning inoperative
- Suspension - Cracked springs
- Tires - Inside duals flat; worn out
- Body condition – Door moldings and/or major seals worn
- Seats – Padding broken down, torn and loose
- Steering – Excessive play
- Washers/Wipers – Washers empty, wipers inoperative
- First Aid Kit – Kit missing and/or missing items
- Electrical Systems/Lights – Headlights, tail lights, dash lights, gauges inoperative or with broken lenses
- Fire Extinguisher – Empty

### **Michigan State Police Inspection Requirements Review**

- Every school bus inspected annually
- More frequently where defects have been found
- Meet requirements of act and any promulgated rules
- May be accomplished at any time and at any location
- Publicly employed inspectors may be used
- Vehicles cannot be operated unless inspected

## **Preventative Maintenance**

Preventative maintenance is the next important inspection. Each school district will have a maintenance schedule that is performed by mechanics employed or contracted by the district. Good preventative maintenance is the key to keeping your bus on the road and saving the school district money. As a school bus driver it is your inspection that also provides input to the mechanics who service your bus.

## **School Bus Driver Pre-Trip Inspection**

One of the most important inspections is the one that you perform as a school bus driver. During this inspection you will check every component listed on your pre-trip inspection form to determine if your bus is ready for operation.

You have already reviewed the reason for conducting the inspection and found that they are both legal and required by most local school districts and intermediate districts.

As you become aware of defects you must report them immediately. You have a responsibility to drive a safe bus. Mechanics cannot make necessary repairs, nor do they know something is in need of repair, unless they receive appropriate feedback from you.

### **Procedure for a Pre-Trip Inspection**

The pre-trip inspection may be divided into seven areas:

- Approach/Engine Compartment
- Right Side
- Rear End
- Left Side
- Front End
- Interior
- Driver Area

## **Sample – Daily Pre-Trip Inspection Form**

Bus # \_\_\_\_\_ Route # \_\_\_\_\_ Driver \_\_\_\_\_ Date \_\_\_\_\_  
Mileage \_\_\_\_\_ Time \_\_\_\_\_ am \_\_\_\_\_ pm \_\_\_\_\_  $\sqrt{\quad}$  Items OK  $\times$  Items Need Repair

Is there body damage? am \_\_\_ yes \_\_\_ no / pm \_\_\_ yes \_\_\_ no. Damage report completed? \_\_\_\_

#### ENGINE COMPARTMENT

am	pm	
_____	_____	Leaks (oil/water)
_____	_____	Belts (condition/tension)
_____	_____	Hoses (condition/leaks)
_____	_____	Washer fluid

#### EMERGENCY EQUIPMENT

am	pm	
_____	_____	Fuses / fire ext / triangles
_____	_____	First aid kit

#### INTERIOR

am	pm	
_____	_____	Oil pressure (20 sec)
_____	_____	Voltmeter (13.5 – 14.2)
_____	_____	Fuel gauge (no less $\frac{1}{2}$ )
_____	_____	Park brake test
_____	_____	Low air warning
_____	_____	Emergency brake test
_____	_____	Horn
_____	_____	Heaters / defrosters / fans
_____	_____	Interior lights
_____	_____	Monitor board
_____	_____	Windshield washer / wipers
_____	_____	Check & adjust mirrors
_____	_____	Wheelchair locks
_____	_____	Emergency windows
_____	_____	Seats (condition)
_____	_____	Emergency door

#### EXTERIOR CHECK

am	pm	
_____	_____	Strobe light
_____	_____	Right front wheel / lug / tires
_____	_____	Right mirrors

#### FRONT OF BUS

am	pm	
_____	_____	Hazard lights
_____	_____	School warning flashers
_____	_____	Clearance lights
_____	_____	Turn signals
_____	_____	Headlight (low / high beams)
_____	_____	Windshields
_____	_____	Convex mirrors
_____	_____	Under bus (leaks)

#### LEFT SIDE

am	pm	
_____	_____	Left front wheel / lug / tires
_____	_____	Left mirrors
_____	_____	Stop arm
_____	_____	Battery box (closed)
_____	_____	Clearance lights
_____	_____	Reflectors
_____	_____	Windows (broken)
_____	_____	Rear wheel / lug / tires
_____	_____	Rear axle seal

#### REAR OF BUS

am	pm	
_____	_____	Clearance lights
_____	_____	School warning flashers
_____	_____	Hazard lights
_____	_____	Turn signals
_____	_____	Brake lights
_____	_____	Tail lights
_____	_____	Rear glass (clean)
_____	_____	Emergency door
_____	_____	Tailpipe

#### RIGHT SIDE

am	pm	
_____	_____	Rear wheel / lug / tires
_____	_____	Rear axle seal
_____	_____	Clearance lights
_____	_____	Reflectors
_____	_____	Windows (broken)
_____	_____	Lift door (operation)
_____	_____	Lift (operation)
_____	_____	Fuel cap on

List all items in need of repair on work order.

TURN INTO OFFICE AT END OF DAY

\_\_\_\_\_  
Signature

White – Office

Yellow - Driver

After you complete a bus run and have some layover time you should perform a Between Trip Inspection. There are a number of items that should be checked.

### **Between Trip Inspections**

- Check for pupils remaining in the bus. This is accomplished by walking from the front to the back of the bus, and checking in and around every bus seat.
- Check for adequate fuel
- Check for vandalism of seats, walls, windows, etc., that may have occurred during the trip
- Check for anything that should not be on the bus, such as a bag or package that might look suspicious
- Check for materials that pupils may have left behind
- Clean out bus
- Obtain any needed supplies or forms
- Check bus for any possible mechanical defects that may have developed during the trip
- Secure bus if not going out on a run immediately
- Report any bus defects found during the trip

### **Post Trip Inspections**

When you complete your final run for the day a number of things should be checked to secure the vehicle and get ready for the next day.

- Check for pupils remaining in the bus. This is accomplished by walking from the front to the back of the bus, and checking in and around every bus seat.
- Refuel bus. Record mileage and amount of fuel taken in
- Check for needed supplies
- Clean bus interior
- Park bus in designated location
- Secure the vehicle
  - Close windows and door
  - Remove key
  - Remove other equipment, if required
  - Turn in items left by pupils
- Turn in all necessary paperwork and records

## **Department of Education Best Practice**

### **End of Route Student Checks**

Leaving even one child unattended on a school bus is a serious concern for Michigan families and schools. The possibility of leaving a child on the bus after a completed bus route is not acceptable and has potentially serious safety ramifications. This is a preventable problem that can be addressed with an effective policy that requires drivers to check their bus before they exit it at the end of their route. Most districts have procedures for the drivers to check the bus at the end of a route, but not all districts have a board policy to reinforce the importance of end of route checks.

The State Board of Education encourages all districts to adopt a policy that defines the responsibilities for all school transportation providers that ensures no students are left on school buses after the completion of a route.

### **Pre-Trip Inspection Form and Reporting Defects**

Pre-trip inspection forms must be kept by your district for at least three years. The inspection form must be filled out completely with great care. Each inspection form should have a full driver signature.

Vehicle inspections are performed to be sure that the bus is in safe operating condition. Report all defects promptly to your maintenance staff and/or supervisor.